

Amendment Under 37 C.F.R. § 1.111
Serial No. 09/910,872
Our Ref: Q65548

REMARKS

Claims 1-10 are all the claims pending in the application. By way of this Amendment, Applicants have amended claims 1, 4, 6 and 9 (these are non-narrowing, clarifying changes) and canceled claims 3, 5 and 8. For the following reasons, it is submitted that the application is in condition for allowance.

Applicants will submit in due course Figures 12 and 14-19 labeled "PRIOR ART", as the Examiner requested.

Claims 1-10 have been rejected under § 112 (second paragraph) as being indefinite. Applicants have amended the claims with the Examiner's comments in mind and have cancelled claims 3 and 5. It is submitted that the claims, as amended, comply with the specificity requirements of § 112. Accordingly, it is requested that this rejection be withdrawn.

Of the pending claims, claims 1, 4 and 6 are in independent form. Claims 1, 2, 4 and 6-10 have been rejected under § 102(b) as being anticipated by Murakami (U.S. Patent No. 5,137,468). For the following reasons, it is respectfully submitted that the claims patentably distinguish over this reference.

As the Examiner undoubtedly appreciates, Murakami is similar to the admitted prior art discussed in the subject application. In this respect, Murakami discloses a terminal having crimping pieces 3a (similar to the claimed piercing portions) in which the taper is provided on the outside surface, as illustrated in Figure 2 of the reference. In order to more clearly recite the

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invention, claim 1 has been amended to recite that the piercing portions include a root portion and a distal portion. Further, claim 1 recites that the internal surface of the distal portion is inclined with respect to the internal surface of the root portion so that the distal portion is tapered. Hence, claim 1, as amended, clearly distinguishes over Murakami. See, Fig. 2 where the inside surface of the crimp pieces is planar. More specifically, in Murakami the taper is formed by changing the angle of the outside surfaces of the crimp terminal, in contrast to the present invention.

In view of the important advantages articulated in the subject application, it is respectfully submitted that claim 1, as amended, patentably distinguishes over Murakami.

Turning to the rejection of claim 4, claim 4 has been amended to clarify that the portion of the piercing portion that has the constant width corresponds to the width of the bottom portion of the crimping portion (*See, Fig. 9) in a direction parallel to the side edges of the terminal* from which the piercing portions project. More specifically, claim 4 has been amended to recite that the side edges (from which the piercing portions are erected) extend in a longitudinal direction of the terminal. In addition, claim 4 has been amended to state that the piercing portion include a portion which has an approximately constant width in the longitudinal direction. In contrast, as shown in Figure 2 of Murakami attached to the Office Action, the Examiner is measuring the width in the direction perpendicular to the longitudinal direction of the terminal.

In view of this amendment, it is respectfully submitted that claim 4 patentably distinguishes over Murakami. The advantage of this feature is clearly articulated in the

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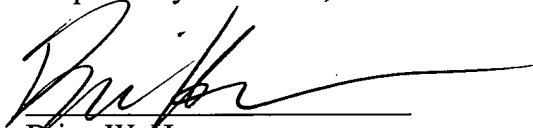
paragraph bridging pages 21 and 22 of the Office Action -- it increases the contact area between the piercing portion 43/44 and the shear plane of the conductor 4a.

Finally, claim 6 has been amended along the lines of claim 4. Thus, it is respectfully submitted that claim 6 is also patentable for the reasons discussed above.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE



IN THE SPECIFICATION:

The specification is changed as follows:

Page 4, last full paragraph (lines 13-24), delete in its entirety, and insert the following new paragraph:

--When folding and molding are to be carried out by the caulking device 9 while the piercing portions 7 and 8 are tilted inwardly, the compression stress FP in a transverse direction which is to be applied to the conductor 4a (4b) present between the piercing portions 7 and 8 by the base internal surfaces 7c and 8c is reduced and is-it becomes difficult to increase the contact pressure.--

IN THE CLAIMS:

Claims 3, 5 and 8 are canceled.

The claims are amended as follows:

Claim 1 (Amended). An electric connecting terminal to be connected to a flat circuit body comprising:

a plane portion;

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a pair of piercing portions erected from opposite side edges of the plane portion adapted to penetrate through a coating and a conductor of the flat circuit body and fold tips thereof in such a direction as to approach each other; ~~and~~

~~a taper surface for gradually reducing a thickness of the piercing portion provided on an internal surface of each piercing portion, wherein said piercing portions include a root portion and a distal portion, an internal surface of said distal portion being inclined with respect to an internal surface of said root portion so that said distal portion is tapered.~~

Claim 4 (Amended). An electric connecting terminal to be connected to a flat circuit body comprising:

a plane portion; and

a pair of piercing portions erected from opposite side edges of the plane portion and adapted to penetrate through a coating and a conductor of the flat circuit body and fold tips thereof in such a direction as to approach each other, said side edges extending in a longitudinal direction of said terminal

wherein each piercing portion includes a portion which have an approximately constant width in said longitudinal direction, is located adjacent to the plane portion and penetrates through the conductor.

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Claim 6 (Amended). An electric connecting terminal to be connected to a flat circuit body comprising:

a plane portion; and

a pair of piercing portions erected from opposite side ~~edge~~edges of the plane portion and adapted to be ~~fold~~folded in such a direction as to approach each other, said edges extending in a longitudinal direction of said terminal each of the piercing portions including:

a first portion, one end of the first portion being connected to the edge of the plane portion, and

a second portion connected to the other end of the first portion including a tip and a taper surface for gradually reducing a thickness of the second portion,

wherein the pair of the taper surfaces face each other over the plane portion, wherein the first portion has an approximately constant width in said longitudinal direction.

Claim 9 (Amended). The electric connecting terminal according to claim-~~8~~6, wherein a width of the second portion becomes gradually narrow toward the tip thereof.